

Reconsideration and withdrawal of the objection to the specification under 35 U.S.C. 112, first paragraph as failing to provide an adequate written description of the invention, is respectfully requested.

The examiner refers to page 3, lines 1 to 11, stating that the language is non-idiomatic resulting in vague and indefinite meaning. The paragraph bridging pages 2 and 3 has been rewritten accordingly.

Furthermore, the examiner objects to the term approximation function as used on page 8, second paragraph. It is respectfully submitted that the term approximation function refers generally to periodic functions of Fourier series. This is well-established and accepted terminology known to a person skilled in the art.

The examiner also objects to the term temperature window on page 11 second paragraph. This term has been changed to "temperature range".

Reconsideration and withdrawal of the rejection of claims 1 and 6-8 under 35 U.S.C. 112, second paragraph as being indefinite

for failing to particular the point out and distinctly claim the subject matter which is regarded as the invention, is respectfully requested.

The Examiner objects to the term "operating parameters important for the working temperature". Claim 1 has been amended to define which parameters are meant in this context.

The Examiner also questions the meaning of "approximation function" in claim 6. As pointed out above in regard to the objection to the specification under 35 U.S.C. 112, approximation functions are well-known in the art and require no further explanation.

Claim 8 has been incorporated into claim 1; in the incorporated text portion, "current density" has been changed to "flux density".

Reconsideration and withdrawal of the rejection of claims 1-8 under 35 U.S.C. 103 (a) as being on patentable over JP 6-320245 or JP 6-304727 is respectfully requested.

Claim 1 has been amended by incorporating therein the subject matter of claims 2, 4, 5, and 8.

This combination of features is not obvious in view of the prior art for the following reasons.

The present invention now defines a method according to which the best suited casting mold load for an optimal slab surface formation is controlled, when knowing the optimal heat flux density or the maximum surface temperature, by adjusting at least one of the operating parameters selected from the group consisting of cooling water quantity and casting speed and casting powder. Accordingly, based on the optimal heat flux density or the maximum surface temperature, the operating parameters, i.e., cooling water quantity, casting speed, and/or casting powder, are adjusted in order to thereby provide the best casting mold load for optimal surface formation.

The prior art JP 6-304727 discloses heat flux being monitor by heat flux sensors and casting velocity being detected by casting velocity detecting means. The data obtained in this way are processed in order to determine whether the heat flux is

within a proper range or within a range where surface flaws could develop. If the critical range is reached, the casting velocity is changed to thereby prevent surface flaws.

The cited prior art the JP 6-320245 discloses heat flux meters for measuring heat extraction in the mold as well as casting speed detection means. The metered data are processed and when it is determined that the surface flaw generating region is reached, the cooling water flow rate is decreased.

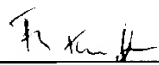
Accordingly, both prior art methods only disclose triggering of corrective measures in response to detecting that the heat flux is within the critical range. This has nothing to do with the concept of the present invention according to which, based on the known optimal heat flux density or the known maximum surface temperature, the operating parameters, i.e., cooling water quantity, casting speed, and/or casting powder, are adjusted in order to thereby control the best casting mold load for optimal slab surface formation.

Therefore, in view of the foregoing, it is submitted that this application is now in condition for allowance and such

allowance is respectfully solicited.

Any additional fees or charges required at this time in connection with the application may be charged to Patent and Trademark Office Deposit Account No. 11-1835.

Respectfully submitted,



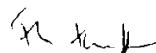
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Encl.: amended claim 1; amended paragraphs of pages 2/3 and page 11 (clean copies and marked-up version)

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on March 12, 2002.

By: 

Friedrich Kueffner

Date: March 12, 2002